Section 2: 510(k) Summary Per 21 CFR Part 807.92.

APR 0 4 2002



GE Medical Systems

General Electric Company P.O. Box 414, Milwaukee, WI 53201

Section a):

1. Submitter:

GE Medical Systems

PO Box 414

Milwaukee, WI 53201

Contact Person:

Allen Schuh.

Manager, Safety and Regulatory Engineering Telephone: 414-647-4385, Fax: 414-647-4090

Date Prepared:

March 8, 2002

2. Device Name:

GE Vivid 3 Expert/Pro Diagnostic Ultrasound System.

Ultrasonic Pulsed Doppler Imaging System, 21 CFR 892.1550, 90-IYN

3. Marketed Device: GE Vivid 3 Expert/Pro is substantially equivalent to the GE Vivid 3 system,

510(k) Number K000695, a device currently in commercial distribution.

- 4. Device Description: The GE Vivid 3 Pro and Expert are minor variations of the Vivid 3 suited for slightly different market segments. The Expert version provides more features as standard equipment while the Pro version, having fewer base options, allows features to be added if desired. Both systems consists of a mobile console with digital beam former and assorted electronic array transducers. Their user interface consists of a keyboard control panel and color video display monitor. They are network accessible and have integrated on-board image storage and hard-copy devices.
- 5. Indications for Use: The GE Vivid 3 Expert/Pro systems are general purpose ultrasound systems that are specialized for cardiac imaging. Specific clinical uses include cardiac (adult & pediatric); peripheral vascular; transesophageal; abdominal including GYN and urology; fetal; pediatric; small organ including breast, testes, thyroid; adult and neonatal cephalic; intraoperative (abdominal, thoracic, and vascular); musculo-skeletal (conventional and superficial); transvaginal and transrectal.
- 6. Comparison with Predicate Device: The GE Vivid 3 Expert/Pro systems are of comparable type and substantially equivalent to the GE Vivid 3. They have the same technological characteristics, compare in key safety and effectiveness features, use same design, construction, and materials, and have similar intended uses, clinical applications, transducers and operating modes as the predicate devices.

Section b):

- 1. Non-clinical Tests: The device has been evaluated for acoustic output, biocompatibility, and thermal, electrical and mechanical safety, and has been found to conform with applicable medical device safety standards.
- 2. Clinical Tests: None required.
- 3. Conclusion: Intended uses and other key features are consistent with traditional clinical practice, FDA guidelines, and established methods of patient examination. The design and development process of the manufacturer conforms with 21 CFR 820 Quality System Regulation and ISO 9001 & EN 46001 quality system standards for medical device manufacturers. The product is designed to conform with applicable medical device safety standards and compliance is verified through independent evaluation with ongoing production surveillance. Diagnostic ultrasound has accumulated a long history of safe and effective performance. Therefore, it is the opinion of GE Medical Systems that the GE Vivid 3 Ultrasound System is substantially equivalent with respect to safety and effectiveness to devices currently cleared for market.



Food and Drug Administration 9200 Corporate Boulevard Rockville MD 20850

Mr. Allen Schuh
Manager GE Ultrasound Product Safety
and Regulatory Compliance
GE Medical Systems
P.O. Box 414
MILWAUKEE WI 53201

APR 0 4 2002

Re: K020789

Trade Name: GE Vivid 3 Expert/Pro Diagnostic Ultrasound Systems

Regulation Number: 21 CFR 892.1550

Regulation Name: Ultrasonic pulsed doppler imaging system

Product Code: 90 IYN

Regulation Number: 21 CFR 892.1560

Regulation Name: Ultrasonic pulsed echo imaging system

Regulatory Class: II Product Code: 90 IYO Dated: March 8, 2002 Received: March 11, 2002

Dear Mr. Schuh:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and we have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

This determination of substantial equivalence applies to the following transducers intended for use with the GE Vivid 3 Expert/Pro Diagnostic Ultrasound Systems, as described in your premarket notification:

Transducer Model Number

E721 Transducer i12L Transducer

i8L Transducer i13L Transducer i739 or t739 Transducer 7L Transducer 12L Transducer 5S Transducer 10S Transducer 6T Transducer 8T Transducer P6D Transducer P509 Transducer 358C Transducer 10L Transducer 3S Transducer 7S Transducer 5T Transducer P2D Transducer

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

This determination of substantial equivalence is granted on the condition that prior to shipping the first device, you submit a postclearance special report. This report should contain complete information, including acoustic output measurements based on production line devices, requested in Appendix G, (enclosed) of the Center's September 30, 1997 "Information for Manufacturers Seeking Marketing Clearance of Diagnostic Ultrasound Systems and Transducers." If the special report is incomplete or contains unacceptable values (e.g., acoustic output greater than approved levels), then the 510(k) clearance may not apply to the production units which as a result may be considered adulterated or misbranded.

The special report should reference the manufacturer's 510(k) number. It should be clearly and prominently marked "ADD-TO-FILE" and should be submitted in duplicate to:

Food and Drug Administration Center for Devices and Radiological Health Document Mail Center (HFZ-401) 9200 Corporate Boulevard Rockville, Maryland 20850

This letter will allow you to begin marketing your device as described in your premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus permits your device to proceed to market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801, please contact the Office of Compliance at (301) 594-4591. Additionally, for questions on the promotion and advertising of your device, please contact the Office of Compliance at (301) 594-4639. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). Other general information on your responsibilities under the Act may be obtained from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or at (301) 443-6597 or at its Internet address "http://www.fda.gov/cdrh/dsmamain.html".

If you have any questions regarding the content of this letter, please contact Rodrigo C. Perez at (301) 594-1212.

Sincerely yours,

Vand G. Segram r Nancy C. Brogdon

Director, Division of Reproductive, Abdominal and Radiological Devices

Office of Device Evaluation

Center for Devices and Radiological Health

Enclosure(s)

Diagnostic Ultrasound Indications for Use Form

GE Vivid 3 Expert/Pro Ultrasound System

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

			<u> </u>		Mode	of Ope	eration				
Clinical Application Anatomy/Region of Interest	В	М	PW Doppler	CW Doppler	Color Doppler	Color M Doppler	Power Doppler	*	Harmonic Imaging	Coded Pulse	Other
Ophthalmic											
Fetal / Obstetrics	Р	Р	Р	Р	Р	Р	Р	Р	P		
Abdominal ^[1]	Р	P	Р	Р	Р	Р	Р	Р	P		ļ
Pediatric	Р	Р	Р	Р	Р	P	Р	Р	Р		
Small Organ (specify)[2]	Р	Р	Р		Р		Р	Р	E		
Neonatal Cephalic	Р	Р	Р	Р	Р	Р	Р	Р	Р		<u> </u>
Adult Cephalic	Р	Р	Р	P	Р	Р	Р	Р	Р		
Cardiac ^[3]	Р	Р	Р	Р	Р	Р	Р	Р	Р		
Peripheral Vascular	Р	Р	Р	Р	Р		Р	P	E		<u> </u>
Musculo-skeletal Conventional	Р	Р	Р		Р		P	P	E		
Musculo-skeletal Superficial	Р	Р	Р		Р		Р	Р	E		
Other ^[4]	Р	Р	Р	Р	Р	P	Р	Р	P		
Exam Type, Means of Access											
Transesophageal	Р	Р	Р	Р	P	Р	P	P	Р		
Transrectal	N	N	N		N		N	N	N		<u> </u>
Transvaginal	N	N	N		N		N	N	N		<u> </u>
Transuretheral											
Intraoperative (specify)[5]	Р	Р	Р		Р		Р	Р	E		ļ
Intraoperative Neurological											
Intravascular											ļ
Laparoscopic											

N = new indication; P = previously cleared by FDA; E = added under Appendix E

Notes: [1] Abdominal includes GYN/Pelvic.

- [2] Small organ includes breast, testes, thyroid.
- [3] Cardiac is Adult and Pediatric.
- [4] Other use includes Urology.
- [5] Intraoperative includes abdominal, thoracic (cardiac), and vascular (PV).
- [*] Combined modes are B/M, B/PWD, B/CWD, B/Color/PWD, B/Amplitude/PWD.

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Division of Reproductive, Abdominal,

and Radiological Devices
510(k) Number

K020789

Diagnostic Ultrasound Indications for Use Form

GE Vivid 3 Expert/Pro with E721 Transducer

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

								V · · · · · · · · · · · · · · · · · · ·			
		· · · · ·		,	Mode	of Ope	T				T
Clinical Application	В	М	PW	CW	Color	Color M	1		Harmonic	Coded Pulse	Othe
Anatomy/Region of Interest			Doppler	Doppler	Doppler	Doppler	Doppler	Modes	Imaging	Pulse	
Ophthalmic			<u> </u>								
Fetal / Obstetrics	N	N	N		N		N	N	N		
Abdominal ^[1]	N	N	N		N		N	N	N		
Pediatric											
Small Organ (specify)[2]											
Neonatal Cephalic											
Adult Cephalic											
Cardiac ^[3]											
Peripheral Vascular							<u>-</u>				
Musculo-skeletal Conventional											
Musculo-skeletal Superficial											
Other ^[4]	N	N	N		N		N	N	N		
Exam Type, Means of Access											
Transesophageal											
Transrectal	N	N	N		N		N	N	N		
Transvaginal	N	N	N		N		N	N	N		
Transuretheral											
Intraoperative (specify)[5]											
Intraoperative Neurological											
Intravascular											
Laparoscopic											

Laparoscopic			<u> </u>					<u> </u>		<u> </u>
N = new indication; P = pr	eviously	cleared	by FDA	E = ac	dded und	der Appe	endix E			
Notes: [1] Abdominal incl	udes GY	N/Pelvi	c.							
[4] Other use inclu										
[*] Combined mod	les are E	3/M, B/P	WD, B/0	CWD, B/	Color/P\	WD, B/A	mplitude	PWD.		
	,								 	
	(PLEASE D	O NOT WRI	TE BELOW	THIS LINE	CONTINUE	ON ANOTH	ER PAGE I	F NEEDED)	 	
	Co	ncurrenc	e of CDI	RH, Offic	e of Devi	ice Evalu	ation (Ol	DE)		

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Prescription User (Per 21 CFR 801.109)

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Diagnostic Ultrasound Indications for Use Form

GE Vivid 3 Expert/Pro with i12L Transducer

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

	-		-		Mode	of Ope	eration	 			
Clinical Application Anatomy/Region of Interest	В	М	PW Doppler	CW Doppler	Color Doppler	Color M Doppler	Power	Combined Modes	Harmonic Imaging	Coded Pulse	Other
Ophthalmic			ļ								
Fetal / Obstetrics											
Abdominal ^[1]	N	N	N		N	-	N	N.	N		
Pediatric	N	N.	N		N		N	N	N		
Small Organ (specify)[2]	N	N	N		N		N	N	N		
Neonatal Cephalic											
Adult Cephalic											
Cardiac ^[3]	N	N	N		N		N	N	N		
Peripheral Vascular	N	N	N		N		N	N	N		
Musculo-skeletal Conventional	N	N	N		N		N	N	N		
Musculo-skeletal Superficial	N	N	N		N		N	N	N		
Other ^[4]											
Exam Type, Means of Access											
Transesophageal	_										
Transrectal											
Transvaginal											
Transuretheral											
Intraoperative (specify)[5]	N	N	N		N		N	N	N		
Intraoperative Neurological											
Intravascular											
Laparoscopic						l					

N = new indication; P = previously cleared by FDA; E = added under Appendix E

Notes: [1] Abdominal includes GYN.

- [2] Small organ includes breast, testes, thyroid.
- [3] Cardiac is Adult and Pediatric.
- [5] Intraoperative includes abdominal, thoracic (cardiac), and vascular (PV).
- [*] Combined modes are B/M, B/PWD, B/CWD, B/Color/PWD, B/Amplitude/PWD.

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Division of Reproductive, Abdomina

and Radiological Devices 510(k) Number

K020789

Diagnostic Ultrasound Indications for Use Form

GE Vivid 3 Expert/Pro with i8L Transducer

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

			- 144 178 B		Mode	of Ope	eration				
Clinical Application Anatomy/Region of Interest	В	М	PW Doppler	CW Doppler	Color Doppler	Color M Doppler		Combined Modes	Harmonic Imaging	Coded Pulse	Other
Ophthalmic											
Fetal / Obstetrics											
Abdominal ^[1]	N	N	N_		N		N	N	N		
Pediatric											
Small Organ (specify)[2]											
Neonatal Cephalic											
Adult Cephalic											
Cardiac ^[3]	N	N	N		N		N	N	N		
Peripheral Vascular	N	N	N		N		N	N	N		
Musculo-skeletal Conventional								-			
Musculo-skeletal Superficial											
Other ^[4]											
Exam Type, Means of Access											
Transesophageal											
Transrectal											
Transvaginal											
Transuretheral						,					
Intraoperative (specify) ^[5]	N	N	N		N		N	N	N		
Intraoperative Neurological											
Intravascular											
Laparoscopic											

N = new indication; P = previously cleared by FDA; E = added under Appendix E

Notes:	[1	Abdominal	includes	GYN/Pelvic
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- [3] Cardiac is Adult and Pediatric.
- [5] Intraoperative includes abdominal, thoracic (cardiac), and vascular (PV).
- [*] Combined modes are B/M, B/PWD, B/CWD, B/Color/PWD, B/Amplitude/PWD.

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and Radiological Devices

510(k) Number

Diagnostic Ultrasound Indications for Use Form

GE Vivid 3 Expert/Pro with i13L Transducer

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

					Mode	of Ope	eration			•	
Clinical Application	В	М	PW	cw	Color	Color M	Power		Harmonic	Coded	Other
Anatomy/Region of Interest		•••	Doppler	Doppler	Doppler	Doppler	Doppler	Modes	Imaging	Pulse	
Ophthalmic											
Fetal / Obstetrics											
Abdominal ^[1]	N	N	N		N		N	N	N		
Pediatric											
Small Organ (specify)[2]		ļ									
Neonatal Cephalic											
Adult Cephalic											
Cardiac ^[3]	N	N	N_		N		N	N_	N		
Peripheral Vascular	N	N	N		N		N	N	N		
Musculo-skeletal Conventional											
Musculo-skeletal Superficial			ļ <u></u>								
Other ^[4]											
Exam Type, Means of Access											
Transesophageal			ļ								
Transrectal											
Transvaginal											
Transuretheral											
Intraoperative (specify) ^[5]	N	N	N		N		N	N	N		
Intraoperative Neurological								<u></u>			
Intravascular			ļ								
Laparoscopic			1 b CD 4								

			: F = adde		

Notes:	[1]	Abdominal	includes	GYN/Pelvic.
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- [3] Cardiac is Adult and Pediatric.
- [5] Intraoperative includes abdominal, thoracic (cardiac), and vascular (PV).
- [*] Combined modes are B/M, B/PWD, B/CWD, B/Color/PWD, B/Amplitude/PWD.

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Division of Reproductive, Abdominal,

and Radiological Devices 510(k) Number

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Diagnostic Ultrasound Indications for Use Form

GE Vivid 3 Expert/Pro with i739 or t739 Transducers

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

					Mode	e of Ope	eration				
Clinical Application Anatomy/Region of Interest	В	М	PW Doppler	CW Doppler	Color	Color M	Power		Harmonic Imaging	Coded Pulse	Other
Ophthalmic											
Fetal / Obstetrics											
Abdominal ^[1]	E	E	E		E		Ε	E	E		
Pediatric			ļ				· · · · · · · · · · · · · · · · · · ·				
Small Organ (specify)[2]											
Neonatal Cephalic											
Adult Cephalic											
Cardiac ^[3]	<u>E</u>	E	E		E		E	E	E		
Peripheral Vascular											
Musculo-skeletal Conventional									:		
Musculo-skeletal Superficial											
Other ^[4]											
Exam Type, Means of Access											
Transesophageal											
Transrectal											
Transvaginal											
Transuretheral											
Intraoperative (specify)[5]	E	<u>E</u>	E		E		E	E	E		
Intraoperative Neurological											
Intravascular											
Laparoscopic										<u> </u>	

N = new indication; P =	previously cleared by FDA	; E = added unde	r Appendix I	Ξ
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Notes: [31	Cardiac	is	Adult	and	P	ediatric.
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and Radiological Devices 510(k) Number ____

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^[5] Intraoperative includes abdominal, thoracic (cardiac), and vascular (PV).

^[*] Combined modes are B/M, B/PWD, B/CWD, B/Color/PWD, B/Amplitude/PWD.

Diagnostic Ultrasound Indications for Use Form

GE Vivid 3 Expert/Pro with 7L Transducer

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

	Mode of Operation										
			1					h	11	Codod	Other
Clinical Application	В	М	PW	CW	Color Doppler	Color M Doppler	Power Doppler		Harmonic Imaging	Coded Pulse	Other
Anatomy/Region of Interest			Doppler	Doppler	Doppiei	Dobbiei	Dobbiei	Wiodes	inaging	1 0100	-
Ophthalmic											
Fetal / Obstetrics											
Abdominal ^[1]											
Pediatric	E	E	E		E		E	E	E		
Small Organ (specify)[2]	Ε	E	E		E		E	E	E		
Neonatal Cephalic											
Adult Cephalic											
Cardiac ^[3]											
Peripheral Vascular	E	Ε	E		E		E	E	E		
Musculo-skeletal Conventional	Е	E	E		E		E	E	E	-	
Musculo-skeletal Superficial	E	E	E_		E		E	E	E		
Other ^[4]											
Exam Type, Means of Access											
Transesophageal											
Transrectal											
Transvaginal										-	
Transuretheral											
Intraoperative (specify) ^[5]											
Intraoperative Neurological											
Intravascular											
Laparoscopic					lded one						-

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Notes:	[1]	Abdominal	includes	GYN/Pelvic
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[2] Small organ includes breast, testes, thyroid.

[*] Combined modes are B/M, B/PWD, B/CWD, B/Color/PWD, B/Amplitude/PWD.

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Division of Reproductive, Abdominal,

and Radiological Devices 510(k) Number_

Diagnostic Ultrasound Indications for Use Form

GE Vivid 3 Expert/Pro with 12L Transducer

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

	Mode of Operation										
Clinical Application Anatomy/Region of Interest	В	М	PW Doppler	CW Doppler	Color Doppler	Color M Doppler	Power	Combined Modes	Harmonic Imaging	Coded Pulse	Other
Ophthalmic											
Fetal / Obstetrics											
Abdominal ^[1]											
Pediatric	E	E	E		Ε		E	E	E		
Small Organ (specify)[2]	E	E	E		Ε		E	E	E		
Neonatal Cephalic											
Adult Cephalic											
Cardiac ^[3]											
Peripheral Vascular	E	E	E		Е		E	Е	E		
Musculo-skeletal Conventional	Е	E	E		E		E	E	E		
Musculo-skeletal Superficial	E	E	E		E		E	E	E		
Other ^[4]											
Exam Type, Means of Access	···										
Transesophageal											
Transrectal											
Transvaginal											
Transuretheral											
Intraoperative (specify) ^[5]	E	E	E		E		E	E	E		
Intraoperative Neurological											
Intravascular											
Laparoscopic			L., EDA								

N =	new indication;	P =	previously	cleared by	FDA;	E = adde	d under	Appendix	E
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Notes:	[2]	Small organ	includes	breast,	testes,	thyroid.
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- [5] Intraoperative includes abdominal, thoracic (cardiac), and vascular (PV).
- [*] Combined modes are B/M, B/PWD, B/CWD, B/Color/PWD, B/Amplitude/PWD.

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510(k) Number

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Diagnostic Ultrasound Indications for Use Form

GE Vivid 3 Expert/Pro with 5S Transducer

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

	Mode of Operation										
Clinical Application Anatomy/Region of Interest	В	М	PW Doppler	CW Doppler	Color Doppler	Color M		Combined Modes	Harmonic Imaging	Coded Pulse	Othe
Ophthalmic											
Fetal / Obstetrics	E	Е	E	E	E	E	E	E	E		
Abdominal ^[1]	E	E	E	E	E	E	E	E	E		
Pediatric	E	E	E	E	E	<u>E_</u>	E	E	E		
Small Organ (specify)[2]											
Neonatal Cephalic											
Adult Cephalic	E	E	E	E	E	E	E	E	E		
Cardiac ^[3]	E	E	E	E	E	E	E	E	E		
Peripheral Vascular											
Musculo-skeletal Conventional											
Musculo-skeletal Superficial											
Other ^[4]											
Exam Type, Means of Access			ļ								
Transesophageal											
Transrectal											
Transvaginal											
Transuretheral											<u> </u>
Intraoperative (specify) ^[5]											
Intraoperative Neurological			<u> </u>								
Intravascular											
Laparoscopic											<u> </u>

N = new indication; P = previously cleared by FDA; E = added under Appendix E

Notes: [1] Abdominal includes GYN.

[3] Cardiac is Adult and Pediatric.

[*] Combined modes are B/M, B/PWD, B/CWD, B/Color/PWD, B/Amplitude/PWD.

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and Radiological Devices

Diagnostic Ultrasound Indications for Use Form

GE Vivid 3 Expert/Pro with 10S Transducer

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

		Mode of Operation									
Clinical Application	В	м	PW	CW	Color	Color M	Power		Harmonic	Coded	Other
Anatomy/Region of Interest			Doppler	Doppler	Doppler	Doppler	Doppler	Modes	Imaging	Pulse	
Ophthalmic											
Fetal / Obstetrics			ļ								
Abdominal ^[1]	E	E	E	E	E	E	_ E	Е	E		
Pediatric	Ε	E	E	E	E	E	E	E	E		
Small Organ (specify)[2]											
Neonatal Cephalic	E	E	E	E	E	E	E	E	E		
Adult Cephalic	E	E	Ε	E	E	E	E	E	E		
Cardiac ^[3]	E	E	E	E	E	E	E	E	E		
Peripheral Vascular											
Musculo-skeletal Conventional											
Musculo-skeletal Superficial											
Other ^[4]											
Exam Type, Means of Access											
Transesophageal											
Transrectal											
Transvaginal											
Transuretheral											
Intraoperative (specify)[5]											
Intraoperative Neurological											
Intravascular											
Laparoscopic											

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$N = ne^{t}$	w indication	P =	previousiy	/ cleared b	y FDA;	= added	i unider /	~ppenu	IV L

[3] Cardiac is Adult and Pediatric.

[*] Combined modes are B/M, B/PWD, B/CWD, B/Color/PWD, B/Amplitude/PWD.

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Concurrence of CDRH, Office of Device Evaluation (ODE)

(Division Sign-Off)

Division of Reproductive, Abdominal,

and Radiological Devices 510(k) Number

Diagnostic Ultrasound Indications for Use Form

GE Vivid 3 Expert/Pro with 6T Transducer

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

	Mode of Operation										
Clinical Application	В	М	PW	cw	Color	Color M	1	Combined		Coded	Other
Anatomy/Region of Interest			Doppler	Doppler	Doppler	Doppler	Doppler	Modes	Imaging	Pulse	
Ophthalmic								<u> </u>			
Fetal / Obstetrics											
Abdominal ^[1]											
Pediatric			ļ								
Small Organ (specify)[2]											
Neonatal Cephalic							,				
Adult Cephalic			ļ								
Cardiac ^[3]	E	E	E	E	E	Е	E	E	E		
Peripheral Vascular											
Musculo-skeletal Conventional											
Musculo-skeletal Superficial											
Other ^[4]											
Exam Type, Means of Access											
Transesophageal	E	E	E	Е	Ε	E	E	E	E		
Transrectal											
Transvaginal											
Transuretheral											!
Intraoperative (specify)[5]											
Intraoperative Neurological											
Intravascular											
Laparoscopic	_										

N = new indication; P = previously cleared by FDA; E = added under Appendix E	
Notes: [3] Cardiac is Adult and Pediatric.	
[*] Combined modes are B/M, B/PWD, B/CWD, B/Color/PWD, B/Amplitude/PWI	D.

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Division of Reproductive, Abdominal,

and Radiological Devices

Diagnostic Ultrasound Indications for Use Form

GE Vivid 3 Expert/Pro with 8T Transducer

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

	Mode of Operation										
Clinical Application	В	М	PW Doppler	CW Doppler	Color Doppler	Color M Doppler	Power Doppler	Combined Modes	Harmonic Imaging	Coded Pulse	Othe
Anatomy/Region of Interest	-100		-								
Ophthalmic			-								
Fetal / Obstetrics			 								
Abdominal ^[1]			 								
Pediatric											
Small Organ (specify)[2]											
Neonatal Cephalic											
Adult Cephalic											
Cardiac ^[3]	E	E	E	E	E	Е	E	Ε	E		
Peripheral Vascular											
Musculo-skeletal Conventional											
Musculo-skeletal Superficial											
Other ^[4]											
Exam Type, Means of Access											
Transesophageal	E	E	E	E	Е	E	Е	E	E		
Transrectal											
Transvaginal											
Transuretheral											
Intraoperative (specify)[5]											
Intraoperative Neurological											
Intravascular											
Laparoscopic					:						

N = new indication; P = previously cleared	by FDA; E = added under Appendix E
Notes: [3] Cardiac is Adult and Pediatric.	The second secon

[*] Combined modes are B/M, B/PWD, B/CWD, B/Color/PWD, B/Amplitude/PWD.

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Division of Reproductive, Abdominal,

and Radiological Devices

510(k) Number.

Diagnostic Ultrasound Indications for Use Form

GE Vivid 3 Expert/Pro with P6D Transducer

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

	Mode of Operation										
Clinical Application Anatomy/Region of Interest	В	М	PW Doppler	CW Doppler	Color Doppler	Color M Doppler		Combined Modes	Harmonic Imaging	Coded Pulse	Othe
Ophthalmic											
Fetal / Obstetrics											
Abdominal ^[1]											
Pediatric											
Small Organ (specify)[2]											
Neonatal Cephalic											<u> </u>
Adult Cephalic											
Cardiac ^[3]		····	Ε	Е							
Peripheral Vascular			Е	E							
Musculo-skeletal Conventional											
Musculo-skeletal Superficial											
Other ^[4]											
Exam Type, Means of Access											
Transesophageal											
Transrectal											
Transvaginal											
Transuretheral											
Intraoperative (specify) ^[5]											
Intraoperative Neurological											
Intravascular											
Laparoscopic N = new indication; P = pre											

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Notes:	[3] Cardiac is Adult and Pedia	tric.				
	I*1 Combined modes are B/M	R/PWD	B/CWD	B/Color/PWD.	B/Amplitude/PWD.	

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and Radiological Devices

510(k) Number _

Diagnostic Ultrasound Indications for Use Form

GE Vivid 3 Expert/Pro with P509 Transducer

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

·	Mode of Operation										
Clinical Application Anatomy/Region of Interest	В	М	PW Doppler	CW Doppler	Color Doppler	Color M Doppler			Harmonic Imaging	Coded Pulse	Other
Ophthalmic											
Fetal / Obstetrics											
Abdominal ^[1]											
Pediatric											
Small Organ (specify) ^[2]											
Neonatal Cephalic											
Adult Cephalic											
Cardiac ^[3]	E	E	E	E	E	E	<u>E</u>	E	E		
Peripheral Vascular											
Musculo-skeletal Conventional		,,									
Musculo-skeletal Superficial											
Other ^[4]											
Exam Type, Means of Access											
Transesophageal	E	Ε	E	E	E	E	E	E	E		
Transrectal											· · · · · · · · · · · · · · · · · · ·
Transvaginal											
Transuretheral											
Intraoperative (specify) ^[5]											
Intraoperative Neurological											
Intravascular											
Laparoscopic											

$N = ne^{i}$	w inc	aica	tion;	P = 1	previous	siy cie	ared by i	PDA; E =	auded under A	Appendix E	
Notes:	[3]	Car	diac	is Ad	ult and	Pedia	tric.				
		_						0.00110	D/O 1 /DIAM	0.74	

[*] Combined modes are B/M, B/PWD, B/CWD, B/Color/PWD, B/Amplitude/PWD.

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Division of Reproductive, Abdominal, and Radiological Devices 510(k) Number _____

Diagnostic Ultrasound Indications for Use Form

GE Vivid 3 Expert/Pro with 358C Transducer

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

	Mode of Operation										
Clinical Application Anatomy/Region of Interest	В	М	PW Doppler	CW Doppler	Color Doppler	Color M Doppler	Power	Combined Modes	Harmonic Imaging	Coded Pulse	Other
Ophthalmic											
Fetal / Obstetrics	Р	Р	Р		Р		Р	Р	E	<u></u>	
Abdominal ^[1]	Р	Р	Р		Р		Р	P	E		
Pediatric	Р	Р	Р		Р		Р	Р	E		
Small Organ (specify)[2]											
Neonatal Cephalic											
Adult Cephalic											
Cardiac ^[3]											
Peripheral Vascular											
Musculo-skeletal Conventional											
Musculo-skeletal Superficial											
Other ^[4]											
Exam Type, Means of Access											
Transesophageal											
Transrectal											
Transvaginal											
Transuretheral											
Intraoperative (specify)[5]											
Intraoperative Neurological										<u>.</u>	
Intravascular											
Laparoscopic			Low EDA								

N = nev	w indication; P = previously cleared by FDA; E = added under Appendix E
Notes:	[1] Abdominal includes GYN/Pelvic.
	[*] Combined modes are B/M, B/PWD, B/CWD, B/Color/PWD, B/Amplitude/PWD.

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Division of Reproductive, Abdominal,

and Radiological Devices 510(k) Number _____

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Diagnostic Ultrasound Indications for Use Form

GE Vivid 3 Expert/Pro with 10L Transducer

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

					Mod€	of Ope	eration				1
Clinical Application	В	М	PW	CW Doppler	Color Doppler	Color M Doppler	Power Doppler		Harmonic Imaging	Coded Pulse	Other
Anatomy/Region of Interest			Doppler	Dobbiei	Dobbiei	Боррісі	Doppici	1110000	iiig.iig		
Ophthalmic											
Fetal / Obstetrics	Р	Р	Р		Р		P	Р	E		
Abdominal ^[1]											
Pediatric	Р	Р	Р		Р		P	Р	E		
Small Organ (specify)[2]	Р	Р	P	,	Р		P	Р	E		<u> </u>
Neonatal Cephalic											<u> </u>
Adult Cephalic											<u> </u>
Cardiac ^[3]			ļ								
Peripheral Vascular	Р	Р	Р		P		Р	P	E		
Musculo-skeletal Conventional	Р	Р	Р		P		Р	Р	E		ļ
Musculo-skeletal Superficial	Р	P	Р		Р		Р	P	E		
Other ^[4]											
Exam Type, Means of Access											
Transesophageal											
Transrectal											
Transvaginal											
Transuretheral	.,										
Intraoperative (specify)[5]	Р	Р	р		P		P	Р	E		
Intraoperative Neurological	·										
Intravascular											
Laparoscopic											

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	= new indication; P = previous	alaarad by Hill	v. – – augeni	Joner Appendix E
F. I	- now indication: P - nrevious	v cieaieu uv i <i>u</i> z	7. L - auucu i	andon rippondir

Notes: [2] Sma	ll organ	includes	breast,	testes,	tnyroid
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- [5] Intraoperative includes abdominal, thoracic (cardiac), and vascular (PV).
- [*] Combined modes are B/M, B/PWD, B/CWD, B/Color/PWD, B/Amplitude/PWD.

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Division of Reproductive, Abdominal,

and Radiological Devices

510(k) Number.

A-17

Diagnostic Ultrasound Indications for Use Form

GE Vivid 3 Expert/Pro with 3S Transducer

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

					Mode	of Ope	eration				
Clinical Application	В	М	PW Doppler	CW Doppler	Color Doppler	Color M Doppler	Power Doppler		Harmonic Imaging	Coded Pulse	Othe
Anatomy/Region of Interest					****						
Ophthalmic	P	P	Р	Р	Р	Р	Р	Р	Р		
Fetal / Obstetrics	P	P	P	P	Р	Р	Р	Р	Р		
Abdominal ^[1]	<u>Р</u> Р	P	P	P	P	P	P	Р	Р		
Pediatric	<u> </u>	P	-	<u> </u>	1			-			
Small Organ (specify)[2]			 								
Neonatal Cephalic			-			P	Р	Р	Р		
Adult Cephalic	<u>P</u>	Р	P	P	P			P	P		
Cardiac ^[3]	P	Р	Р	P	Р	P	Р	P	Р		
Peripheral Vascular											
Musculo-skeletal Conventional											
Musculo-skeletal Superficial			ļ. <u>.</u>								
Other ^[4]	P	Р	Р	P	P	Р	Р	P	P		
Exam Type, Means of Access											
Transesophageal											
Transrectal											
Transvaginal											<u> </u>
Transuretheral											_
Intraoperative (specify) ^[5]											
Intraoperative Neurological											ļ
Intravascular											
Laparoscopic											

				Appendix E	

Notes:	[1]	Abdominal	includes	GYN.
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Prescription User (Per 21 CFR 801.109)

- [3] Cardiac is Adult and Pediatric.
- [4] Other use includes Urology.
- [*] Combined modes are B/M, B/PWD, B/CWD, B/Color/PWD, B/Amplitude/PWD.

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Division of Reproductive, Abdominal,

and Radiological Devices 510(k) Number _____

A-18

K020789

Diagnostic Ultrasound Indications for Use Form

GE Vivid 3 Expert/Pro with 7S Transducer

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

		-			Mode	of Ope		·	·		·
Clinical Application	В	М	PW Doppler	CW Doppler	Color Doppler	Color M Doppler	Power Doppler	Combined Modes	Harmonic Imaging	Coded Pulse	Othe
Anatomy/Region of Interest			Борріог	Воррия							
Ophthalmic											
Fetal / Obstetrics			<u> </u>						_		
Abdominal ^[1]	Р	Р	Р	Р	Р	Р	Р	Р	Р		
Pediatric	Р	Р	P	Р	Р	Р	Р	Р	Р		
Small Organ (specify) ^[2]			ļ <u>.</u>								
Neonatal Cephalic	Р	Р	Р	Р	Р	Р	Р	P	P		
Adult Cephalic			<u> </u>								
Cardiac ^[3]	Р	Р	P_	Р	Р	P	Р	Р	Р		
Peripheral Vascular											
Musculo-skeletal Conventional			ļ <u>.</u>								
Musculo-skeletal Superficial											
Other ^[4]	Р	Р	Р	Р	Р	Р	Р	Р	Р		
Exam Type, Means of Access											
Transesophageal											
Transrectal			ļ								
Transvaginal											
Transuretheral											
Intraoperative (specify)[5]											
Intraoperative Neurological											
Intravascular											
Laparoscopic											

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			وما صور مستور می در در در در	cleared by FDA;	E - added iii	der Appendix III.
N	I new ind	lication. P	' = previousiv	cleared by FDA.	L - addoca un	aci ripporiaix =

Notes:	[1] Abdominal includes GYN.
	[3] Cardiac is Adult and Pediatric.
	[4] Other use includes Urology.
	[*] Combined modes are B/M, B/PWD, B/CWD, B/Color/PWD, B/Amplitude/PWD

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Concurrence of CDRH, Office of Device Evaluation (ODE)	

Prescription User (Per 21 CFR 801.109)

(Division Sign-Off)

Division of Reproductive, Abdominal,

and Radiological Devices

510(k) Number <u>K020789</u>

Diagnostic Ultrasound Indications for Use Form

GE Vivid 3 Expert/Pro with 5T Transducer

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

)	**************************************		Mode	of Ope	eration				
Clinical Application Anatomy/Region of Interest	В	М	PW Doppler	CW Doppler	Color Doppler	Color M Doppler			Harmonic Imaging	Coded Pulse	Other
Ophthalmic											
Fetal / Obstetrics											
Abdominal ^[1]											
Pediatric											
Small Organ (specify)[2]											
Neonatal Cephalic											
Adult Cephalic											
Cardiac ^[3]	Р	Р	Р	Р	P	Р	Р	Р	Р		
Peripheral Vascular											
Musculo-skeletal Conventional											
Musculo-skeletal Superficial			ļ								
Other ^[4]											
Exam Type, Means of Access											
Transesophageal	Р	P	Р	Р	Р	Р	Р	Р	P		
Transrectal				:							
Transvaginal											
Transuretheral											
Intraoperative (specify) ^[5]											
Intraoperative Neurological											
Intravascular											
Laparoscopic						l					

N = n	ew indication;	P =	previously	cleared	by FDA;	E = added	under	Appendix 6	Ξ
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Notes: [3] Cardiac is Adult and Pedi	atric	Pedia	and	Adult	is	Cardiac	[3]	Notes:
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[*] Combined modes are B/M, B/PWD, B/CWD, B/Color/PWD, B/Amplitude/PWD.

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Concurrence of CDRH, Office of Device Evaluation (ODE)

A-20

Prescription User (Per 21 CFR 801.109)

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Division of Reproductive, Abdominal,

Diagnostic Ultrasound Indications for Use Form

GE Vivid 3 Expert/Pro with P2D Transducer

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

					Mode	of Ope	eration				
Clinical Application Anatomy/Region of Interest	В	М	PW Doppler	CW Doppler	Color	Color M	Power	Combined Modes	Harmonic Imaging	Coded Pulse	Other
Ophthalmic											
Fetal / Obstetrics											
Abdominal ^[1]											
Pediatric											
Small Organ (specify) ^[2]											
Neonatal Cephalic											
Adult Cephalic											
Cardiac ^[3]			P	Р							
Peripheral Vascular			Р	Р							<u> </u>
Musculo-skeletal Conventional										 -	ļ
Musculo-skeletal Superficial											
Other ^[4]											
Exam Type, Means of Access											
Transesophageal											!
Transrectal											
Transvaginal											
Transuretheral											
Intraoperative (specify) ^[5]											
Intraoperative Neurological											
Intravascular											
Laparoscopic]	

N = ne	ew indication; P = previously cleared b	y FDA; E = added under Appendix E
Notes:	: [3] Cardiac is Adult and Pediatric.	
	[*] Combined modes are R/M R/PM	ID B/CWD B/Color/PWD B/Amplitude/PWD.

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Concurrence of CDRH, Office of Device Evaluation (ODE)

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Division of Reproductive, Abdominal,

and Radiological Devices 510(k) Number

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